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CYSTIC OUTGROWTHS OF THE VAGINA.

BY WALTER CHANNING, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN the JOURNAL of April 11th, last, Dr. J. F. Noyes, of Waterville, Maine, communicated a case of cystic outgrowth of the vagina. It was soft and elastic, distending the vagina, and protruding from it. Sixteen years ago, during pregnancy, the patient discovered a small outgrowth within and on the front of the vagina. Since delivery it had rapidly increased, producing much suffering and anxiety. It had no connection with bladder or rectum. It was freely opened. The discharge was glairy, resembling in consistency and color thick honey. The cyst was dissected out, and the edges of the wound were secured with silver sutures. Three weeks after, the patient was well, "and considers now the organ in a normal condition." The date of this opinion of Mrs. S. is not given.

Two or three weeks after reading this case, my friend, Dr. J. Mason Warren, told me he had a case of cystic vaginal outgrowth for which he should soon operate, and kindly asked me to be present. Mrs. ——— was four months pregnant. The outgrowth filled the vagina and protruded out of it. It was elastic, smooth, and resembling in color that of the vagina. It was always external when the patient was erect, occasioning much annoyance during walking, from its size, and the weight and friction of the dress. It was neither visico- or recto-cele.

An incision through the vaginal envelope of the cyst was made the whole of its external length. It was then dissected carefully and thoroughly out. The contained fluid very exactly resembled that in Dr. Noyes's case. No sutures were employed; the protruded vagina was put into its place, and a compress applied to prevent its protrusion. In a week, Mrs. ——— was judged sufficiently well to return to her friends in Canada.

VOL. LXIV.—No. 17

Soon after this case, Mrs. ———, aged 26, called on me with a letter from my friend Dr. Stevens, of Stoneham, asking me to examine her case and to report to him my opinion concerning it. It was stated that Mrs. ——— was in the last week of the eighth month of pregnancy.

Upon examination, I found a large cyst protruding from the external organs. It was bi-lobed, the right lobe was much larger than the left. The whole surface was red, that of the small lobe the most so. It was tender—sore to the touch—which state could be readily accounted for by the weight and constant friction of the dress. In the horizontal position the cyst was much less in size than when Mrs. ——— was up and about. Upon further inquiry, I learned that about six months previous to the time of her call, when about two months pregnant, Mrs. ——— had run some distance very rapidly, and soon after began to feel uneasiness in the vagina. This increased, and at length an outgrowth was felt, and having soon protruded, grew rapidly. Her general health was good. The outgrowth was reduced. A compress and T bandage were applied. Mrs. ——— returned home, with my opinion in a letter to Dr. Stevens, and a wish expressed to see her with him, whenever he would inform me of that being agreeable to him. In a few days, he desired me to meet him in consultation.

Upon reaching the address a meeting was arranged, and it was agreed to open the cyst freely, and discharge its contents, and to wait till after her delivery before doing more. At this time labor was looked for in two or three weeks. A long incision was made through the walls of the cyst. The discharge was a fluid *exactly resembling pure water*, but was found to be distinctly ropy after further examination. The largest lobe of the cyst being emptied, the small one remained distended as before. This was freely opened, the contents exactly resembling what came from the first. The incisions were left open; and a compress and T bandage to prevent the protrusion of the flaccid walls of the cyst, were applied.

After the operation a finger was passed into the rectum, and another into the cyst. The whole length of the finger was firmly pressed into it, before its rectal termination was reached; and I was much surprised, when the ends of the fingers were brought together, at finding how thin was the interposed partition; it seemed not thicker than paper, the interstitial tissue being quite absorbed.

I do not know how it has been with those with whom I began medical practice—and of whom only two are now living—in regard to cystic outgrowths of the vagina; for myself I can say, that these three cases are the only ones of which I have any knowledge as occurring amongst us. I have certainly frequently seen diseases of the vagina; but have no memory of cystic outgrowths before these. A question may arise of diagnosis, how these cysts differ from others of the same organs.

Pelvic Abscess.—These at times are very large—fill the vagina. But I have no instance in which they have appeared *externally*. On the contrary, the largest of them occupy most frequently the upper part of the pelvis; and I have met with cases in which most of the abscess has been above the brim. In one of the worst cases, and which was long under my care, the abscess broke, so to speak, into the bladder, and it was long before pus ceased to appear in the urine. The most distress in this case, and for much time in it, was in the bladder—its region and function. Mrs. ——— has completely recovered. In a case which I saw with Professor Simpson, of Edinburgh, the abscess was very large, and filled much of the pelvis. Prof. S. opened it. The discharge was very large, dark-colored—nearly black, and of the most disagreeable odor, obviously getting a part of its character by endosmose. The symptoms aid diagnosis. In pelvic abscess these are very severe; and constitutional conditions are very gravely disturbed. The pain is very severe; the sleep is broken; appetite fails; emaciation I have seen as complete as in phthisis. Danger to life is imminent. The abscess *never* protrudes from the vagina.

There is another form of *pelvic abscess* which may not be so readily distinguished from our cystic ones. Pain and burning in the vagina, dysuria, and embarrassment on motion, with various constitutional disturbances, attend this disease. Upon examination, local swelling, at times quite small and not very well defined, is discovered. After a time it breaks, and pus, with blood, is discharged. The opening closes, and a new abscess of the same character is formed. At times a sinus is made, and a purulent discharge is established. An obstructed follicle may be a cause of these tumors, and inflammation occurs, and forms, and establishes a chronic disease. Now there is no difficulty in distinguishing these from the cystic outgrowths under consideration. They never protrude from the vagina, are small, and the fluid contained differs wholly from what exists in the other disease.

From dislocation of the rectum and urinary bladder they are readily distinguished. By digital examination from the first, and by the catheter from the last.

Dr. ——— called, a few days since, to get a uterine supporter. He selected one. I asked of the case.

Miss ——— for a long time had suffered gravely by disease in or about the pelvis. Much obscurity in the diagnosis. The womb was found prolapsed. Of late, a new symptom—vomiting. Examination discovered the prolapsus. The womb was reduced, and *vomiting immediately ceased*. As long as the finger supported it, no vomiting; nausea and vomiting when the support was withdrawn. Within a few months, a new symptom—sudden and copious discharge of pus from the rectum, with immediate relief of pain, and of vomiting. These symptoms returned after various intervals, viz., pain, vomiting and purulent discharges. Dr. ——— had been con-

sulted, but no discovery was made of the seat of the abscess, or the outlet of the pus. Was it abscess of the womb itself? I said no. What then? Pelvic abscess?

Dr. ——— reported to me a case resembling the above in some of its symptoms, viz., exquisite pain in the left iliac, with swelling, and excessive heat; these, and absolute inability to use the left limb at the time, and slow recovery of the power afterwards. Copious, liquid, easy dejections suddenly occurred. Costiveness had not been a symptom. Immediate relief followed. In this case, so grave was the constitutional disturbance, that recovery was despaired of. The dejections were not examined. Were they not purulent?

Ovarian Dropsy.—In some, but very rare cases of this disease, the cyst presses down into the pelvis, forming a fluctuating swelling. A case of this kind came under my notice.

Mrs. ——— was surprised by a copious discharge of a colorless glairy fluid from the rectum, and occurring at distinct intervals. She was desired to collect some of it for inspection. At my next visit she handed me a glass tumbler full of this liquid. It resembled exactly the white of an egg, and had an odor not unlike that substance. In appearance, it exactly resembled that of the third case above reported. There was not the least faecal smell in it. The discharge continued. The ovarian outgrowth grew daily less, and at length ceased. Perfect recovery followed.

It has been suggested, or the question asked, if an opening by the rectum or through the *cul de sac* might not be made in this disease, especially where there is pelvic or rectal enlargement discovered. It is a well-known fact that the bursting of the ovarian sac into the abdomen by violence, falls, or great and sudden exertion, has been followed by rapid recovery. I attended a case of labor, in the subject of which ovarian dropsy had long existed, and for which tapping was to be done. Mrs. ———, while lifting a heavy weight—a washtub, felt something suddenly give way within her. The swelling rapidly subsided, good health occurred, and she became pregnant. She passed through labor and the puerperal state without accident. Many such cases are on record.

The contents of these vaginal cysts differ, and all are unlike those of vaginal, or, more correctly, pelvic abscesses. Their contents are not purulent, and this suffices to show that they are not the products of purulent inflammation. What is the precise or anatomical character of the secreting tissue in this disease, I know not. It is a product of disease, but which obviously is different, or is modified, in different instances.

DR. ROBIN'S MEMOIR ON THE ANATOMY AND PHYSIOLOGY OF
THE MUCOUS MEMBRANE AND THE EPITHELIUM OF THE
UTERUS DURING PREGNANCY.

[Continued from page 342.]

THE epithelium which is found in the regions I have just described, is partly formed of *free nuclei* and partly of *cells*; the latter of which very much exceed the former in quantity. In each preparation of the fresh subject we oftener find them closely associated, under the form of little membranous filaments, than isolated. These epithelial cells are to a certain extent similar to those which I have pointed out in the preceding paragraph, and are sometimes more, and sometimes less granular. Some of them, especially those which are hypertrophied, become larger by the half or double their normal state, preserving, however, to a limited degree, the form of the prismatic epithelium, with extremities adherent, sometimes constricted and sometimes distended and rounded. Others have become distinctly polyhedral. In almost all, the nucleus has increased in volume in the same proportion as the cell, and encloses one or two nucleoli, having a brilliant yellow centre, with a deep blackish outline.

But at the same time, between the preceding cells, or in their vicinity, we find cells, whether isolated or closely associated in bits, or layers of greater or less size, which have undergone very considerable and most singular hypertrophy and morbid alteration.

We find there those which, instead of having two or three hundredths of a millimetre ($\frac{1}{100}$ or $\frac{3}{100}$) in size, or thereabouts, as in the normal state, attain one tenth of a millimetre even, and more in length ($\frac{3}{10}$); and could consequently be perceived by the naked eye, if they had a greater diameter and were less transparent. Between these dimensions and those of the normal state, we find every possible degree of intermediate length. The thickness of these cells rarely exceeds eight or twelve thousandths of a millimetre ($\frac{8}{1000}$ to $\frac{12}{1000}$), but they are dilated and appear to be from one to four hundredths of a millimetre ($\frac{1}{100}$ to $\frac{4}{100}$) across.

The form of the cells naturally varies a good deal, according as the hypertrophy and the increase of the mass has taken place in one or two directions only (which very often occurs, and is the precise cause of the malformation), the other dimensions remaining normal, or in proportion as the hypertrophy goes on in all directions. In this case, the cells become entirely spherical or spheroidal; but we find few cells which show this form, and their diameter does not much exceed two or three hundredths of a millimetre ($\frac{2}{100}$ to $\frac{3}{100}$).

The greater part of the cells thus distorted and hypertrophied, are elongated and terminated at two ends by a point, generally irregularly truncated, and more rarely sharp and regular. This

elongation frequently takes place on one side only, the other remaining polyhedral or rounded, as if it had been truncated.

It is just at the nucleus of each cell that the largest portion of the latter is found. When they are regular, the cells have a general ovoid, elongated, or better, a fusiform shape, very dilated or clubbed, according as the distended portion continues itself from each side to a point or from one side only.

It is common to find one or two extremities of each cell irregularly bifurcated, and their edges, as it were, cut, or, on the other hand, furnished with one or more prolongations more or less narrow. These prolongations are principally to be seen upon the angles of the cells which remain more or less irregularly polyhedral. They there give very queer shapes to the epithelial cells. The nature of the latter would certainly be then misunderstood, if we should pass judgment upon them without having followed their phases of hypertrophy and distortion through the different periods of pregnancy, and if we had not observed their successive conditions; the different degrees which separate the sufficiently regularly shaped, polyhedral cells, already noticed, from these last, are now and then to be noticed also in the envelope of a fœtus at term, and in the same region of the epithelium of the decidua.

Some of these hypertrophied cells contain two or three nuclei, but this circumstance is rare. The majority have only one, but remarkably voluminous, with a clear, brilliant centre, slightly granular, and having a sharp, regular outline. The nucleus is generally ovoid, as in the normal state, but very much hypertrophied. It almost always attains a length of from twelve to eighteen thousandths of a millimetre ($\frac{1}{1000000}$ to $\frac{6}{1000000}$), with a breadth of from six to ten thousandths of a millimetre ($\frac{3}{1000000}$ to $\frac{37}{1000000}$). Each nucleus encloses one or two nuclei, of the size of from one to two thousandths of a millimetre ($\frac{37}{1000000}$ to $\frac{74}{1000000}$), having a brilliant amber-tinted centre, with a sharp, deep, blackish contour.

The free nuclei of the epithelium, whose presence I have pointed out at the commencement of this description, are similar to those which I have just described. They are manifestly similar, or very analogous with those which have been described and figured under the names of *cancerous*, *carcinomatous* nuclei, &c., and have received this name, without doubt, from those who may have seen them without having followed the phases of their modifications, which I have just described. Here, however, they are normal, but their analogues are to be seen in the epitheliums of most other organs under a variety of morbid conditions.

It is from having formed an opinion upon the anatomical arrangements of this class, before having followed the various phases of the normal and pathological evolution of anatomical elements, that the conclusions with regard to so many of the morbid tissues ought to be reviewed.

I will say, in conclusion, that some of the hypertrophied and distorted cells which I have already described, remain finely granulated, almost as much so as in the normal state. At that time they are very pale, and very transparent. But most of the cells are studded or filled with fatty granulations, having a brilliant yellow centre and a deep outline, such as we so often see in tumors, upon the pathologically hypertrophied epithelial cells. These granulations are generally more numerous about the nucleus which they circumscribe, or at its two extremities, than in the other portion of the cell. Everywhere, when they are accumulated, they render the cell opaque, a condition which is in great contrast to the transparency of the rest of the body. There are some cells in which the granulations form masses quite regular, elegant, and more or less distant from the nucleus, or disposed in chains or in the form of a string of beads, which appear in the body of the cell itself, or in the prolongations of the latter when it has them.

§ 3.—*Of the Principal Modifications which the Epithelial Cells of the Uterus, between the Placenta or the Allantois and the Mucous Membrane of the Uterus, exhibit in some of the Domestic Mammalia.*

During pregnancy, the epithelial cells of the uterus, in domestic and wild animals, show gradual changes, analogous to those which I have pointed out in the human female.

In the cornua of the uterus in the sow, the cells differ, during pregnancy, according to their locality. In the spaces between the points occupied by each ovum, the cells maintain their prismatic state and their nucleus more frequently spherical than ovoid, without a nucleolus. Moreover, they do not retain their vibratile cilia, having lost these at this period.

At the regions where the allantois is applied against the mucous membrane, the epithelium of the latter, as well as many of the cells which remain adherent to the allantois, under the form of a soft, viscous, grizzly coat, are hypertrophied and become tessellated. It is peculiarly interesting to follow the phases of the transformation of the prismatic cells into the tessellated form, by taking the epithelium at points more or less near to the portions of the mucous membrane which are applied against the ovum.

The cells, in reality, appear relatively more and more short and thick; they do not become more granulated, but their nucleus gradually changes from the ovoid form, becomes larger, and acquires a nucleolus, generally as much more enlarged as the nucleus itself increases in size.

In the portions of the mucous membrane which are closely applied to the ovum, the cells which have become polyhedral, but often showing blunt angles, with curved sides, usually reach a diameter of from two to three hundredths of a millimetre (from $\frac{1}{100}$ to $\frac{3}{100}$ of an inch). Many of the intermediate ones become spherical or ovoid, from which they are isolated each from the other, and freed.

Those which contain two or even three nuclei are furnished with a brilliant yellowish nucleolus. With these cells are found mingled a few free nuclei, similar to those which are found in the cells themselves.

The epithelial cells, which I have just described, whether prismatic or tessellated, form, in the portions which they occupy, a sheath for the vascular papillæ, with which the uterine mucous membrane is furnished in animals. We often find the *debris* of these epithelial sheaths in the uterine mucus or in the grizzly coat interposed between the mucous membrane and the allantois.

These sheaths are easily distinguished from those of the follicles of the mucous membrane of the uterus; for the epithelium of the latter is nucleated, with ovoid nuclei, a little larger than the blood globules in the adult, without nucleoli, and often slightly separated from each other by a minute portion of finely granulated amorphous matter.

In the doe-rabbit or Guinea-pig, or sea-hog, the modifications undergone by the epithelial cells of the uterus during gestation are more interesting than in the sow.

The cells of the mucous membrane which is not in contact with the placenta undergo, in reality, in their own conformation, certain changes, and these differ from that which takes place in the *inter-utero-placental* epithelial cells.

1st. *In the portions of the mucous membrane taken in the intervals between the ova*, the cells usually preserve their prismatic form, except that their thickness may be generally doubled, or even, in some instances, tripled. Their length changes but little. Those of the few whose thickness is quadrupled or quintupled, become cubical or polyhedral, with many faces, and even spheroidal.

From their juxtaposition, they form bits of epithelium of great beauty under the microscope, particularly in the epithelial sheaths of the very vascular villousities of this mucous membrane. These epithelial sheaths, which maintain the form of the villousities, are easy to recognize, and afford an opportunity of observing this epithelium under every point of view.

In each cell, with hardly an exception, hypertrophied or not, are to be seen two, three, four or five nuclei. They are generally contiguous, placed in a series one after the other, in a single row, in the cells little or not at all hypertrophied. Towards the largest part of the cell, there are sometimes two nuclei placed across, below the line formed by the other nuclei. In the cells which are double, triple or quadruple in volume, the number of nuclei may amount to from six to fifteen, or thereabouts. Then they are disposed in two, three or four contiguous ranks, along the length of the cell, or heaped up without order.

In these arrangements, very singular and very different appearances take place in the cells, from what we observed in the unimpregnated state.

These nuclei are always, or almost always, spherical, of from five to seven thousandths of a millimetre ($\frac{1}{100000}$ to $\frac{1}{100000}$ of an inch), finely granulated and without nucleoli. The bodies of the cells remain finely granulated. These facts, with what follows, may be noticed when the gestation has hardly as yet reached the fifteenth day.

2d. *At the placenta, in the inter-utero-placental*, grizzly, friable coat, of which I have already spoken in the second part of this memoir, the cells exhibit changes different from those which I have just described.

They are entirely hypertrophied and deformed, very much as are the cells of the decidua in the human female, described in the preceding paragraph. Their very structure is more modified even than in the human female; moreover, these cells have not the slightest resemblance to the cells of the mucous membrane of the uterus when empty.

All these cells have taken the tessellated form, but are irregular in consequence of the inequality in the length of the angles which limit their faces; their borders also are often slightly dentated. They attain almost to the dimensions of which I have given the figures in the preceding paragraph, in describing the epithelial cells of the inter-utero-placental decidua, in the human female, with this exception, that the incisions or prolongations of the edges of these cells are more rare in the rabbit than in the human female. Moreover, we find cells isolated or joined together, and in contact with the preceding, which are not much more than half as long and thick as in the empty uterus. They resemble, very remarkably, in form and volume, the cells of the impregnated uterus, taken from the intervals between the ova. They, in like manner as the latter, enclose from three to six nuclei or thereabouts, similar in kind. Moreover, besides the spherical nuclei, we almost always find in the same cell one, two or more nuclei of an ovoid shape, and slightly larger than those which are spherical. Above all, it is near the border of the placenta, that the grizzly coat, the *inter-utero-placental*, shows cells analogous even with those from the space between the ova.

From these last, up to the largest cells, which are also the most irregular, we find every intermediate degree of form and volume, in the majority of cases mingled without order through the different layers of the epithelium.

The largest cells, which are flattened, and scarcely regular, enclose (like the largest of the cells which we find in the spaces between the ova) from six to eighteen and even twenty nuclei. They are contiguous or but little separated, according to their distribution in the body of the cell; almost invariably, there are one or two which have a spherical form, and a size of about six thousandths of a millimetre (about $\frac{1}{100000}$ of an inch); but the rest are ovoid, and always of different sizes. It is not rare, actually,

to find in the same cell, nuclei which are from six to eighteen thousandths of a millimetre ($\frac{225}{1000000}$ to $\frac{675}{1000000}$ of an inch) in size; but in the majority of the cells, the length of the largest nuclei does not exceed twelve thousandths of a millimetre ($\frac{450}{1000000}$ of an inch), for the most bulky are ovoid.

There are few nuclei which show a nucleolus. The body of the cells in the spaces between and around the nuclei, is very much granulated. These granulations give to the cells a greyish tint, having but little transparency, when they do not reach a thousandth of a millimetre (about $\frac{37}{1000000}$ of an inch) in size, and are uniformly distributed. The cells are as much more greyish and deep colored as the granulations are larger and nearer together.

And besides, certain cells are rendered nearly opaque by a multitude of fatty granulations, which may have attained a size of two thousandths of a millimetre even ($\frac{75}{1000000}$ of an inch), yellow in the centre, with a deep-colored outline. They are scattered, or accumulated about the nuclei, but generally more abundant than those which we see in the analogous cells of the decidua of the human female.

These cells can be detected, under the microscope, in an isolated condition or associated together in fragments of various sizes, or even juxtaposed in hollow strings, suggesting, moreover, the form of the sheaths which cover the villousities of the mucous membrane of the uterus.

In the Guinea pigs, we observe facts analogous to the preceding; but at the surface of the placenta especially, the viscous greyish coat, which is formed from the epithelium, contains many cells which are regularly spherical or ovoid, in the midst of those which are polyhedral and hardly regular. These are from three to seven hundredths of a millimetre ($\frac{111}{1000000}$ to $\frac{250}{1000000}$ of an inch), or thereabouts. They contain one or more nuclei, which are particularly noticeable for their enormous volume. We find there some, indeed, which reach twenty-five thousandths of a millimetre ($\frac{950}{1000000}$ of an inch), and many have an average of fourteen to eighteen thousandths of a millimetre ($\frac{420}{1000000}$ to $\frac{666}{1000000}$ of an inch). The presence of two nucleoli is common. They are brilliant and yellow in the centre, and from one to four thousandths of a millimetre ($\frac{37}{1000000}$ to $\frac{150}{1000000}$ of an inch) in size.

CASE OF PLACENTA PRÆVIA.

BY EBENEZER STONE, M.D.

[Read before the Norfolk (Mass.) District Medical Society.]

On the 23d of December, 1858, at 9 o'clock, P.M., I was called to Mrs. H. G., aged 33, in the seventh month of pregnancy, with her fourth child. I was informed that she had had slight hæmorrhage, for two or three days, which had now increased on the occurrence

of labor pains. These pains were described as short, feeble, cutting or tearing, and always attended with flooding.

On examination, I found the mouth of the womb but little dilated, with the placenta presenting. There was urgent nausea, with occasional vomiting. The contractions of the womb being slight, and the hæmorrhage at present not urgent, an anodyne was given. She became easy, with little bleeding, and slept most of the night.

On the 24th, she had one or two slight returns of pain, attended as before with nausea and hæmorrhage; but the pain subsided, as on the 23d, and she slept at night.

On the 25th she remained about the same, and slept as usual at night.

On the 26th, at 10½ o'clock, A.M., I was called in haste, on account of flooding.

I found my patient faint, pale, cold and almost pulseless, with nausea and retching. On examination, I found a large part of the placenta in the vagina, the mouth of the womb dilatable, and the head presenting. As the state of the patient would not, at this time, admit of artificial delivery, I administered a dose of ergot, and in a few minutes a strong contraction of the uterus expelled the placenta into the vagina, and all hæmorrhage ceased at 12 o'clock, M.

The patient was now very much exhausted, but as she was free from flooding, and had no labor pains, we endeavored, by the use of stimulants, rest and fresh air, to recruit her strength, and we so far succeeded that her pulse and countenance rallied, when her pains returned and expelled the child dead, at 7½ o'clock, P.M. No hæmorrhage followed the delivery, and I left her comfortable at 9 o'clock, P.M.

She had a good recovery.

This case, as far as it goes, confirms the principle laid down by Simpson, that the complete separation of the placenta arrests the hæmorrhage. In the present case, after the expulsion of the placenta into the vagina, there was for seven and a half hours scarcely sufficient hæmorrhage to stain a napkin.

When I arrived on the 26th, manual interference with the labor was not to be thought of, as the irritation of an examination produced fainting and nausea, with an effort to vomit.

Previous to this time, the state of the mouth of the womb admitted of no interference, with safety to the mother. I was informed that her previous labors had been easy and quick; I therefore judged, that if labor pains were present, the case would soon be terminated, and the result, on administering the ergot, was the expulsion of the placenta and the arrest of the hæmorrhage. We then had time to recruit the exhausted powers of the patient, and the last effort, resulting in the delivery of the child, was well borne.

I thought the case, from its rarity, might be of interest to the

profession. The number of ordinary placenta presentations, in Collins's report, is only 11 in 16,414, and the number of placenta prævia only three in that number.

Walpole, May 6, 1861.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.
BY WILLIAM READ, M.D., SECRETARY.

Second meeting, MARCH 2d, 1861. Dr. WALTER CHANNING, President, in the chair.

The President stated that, owing to his not having been able to obtain all the materials which he needed to complete the paper on Puerperal Convulsions he had proposed to read this evening, he would give only an outline of what he intended to present, and would ask for the experience of the gentlemen present in regard to the question how far anasarca and albuminous urine were connected with convulsions?

Dr. COTTING remarked that the cases he had seen were anasarcons only, and not tumid. In one case the patient was a delicate woman, who had an excessive flow of urine for three or four months previous to her confinement. The urine was albuminous. The convulsions were controlled by chloroform. In the same patient, at another pregnancy which occurred after an interval of three years, ether was used.

Dr. PUTNAM had seen cases of convulsions where there was no anasarca. There was no examination of the urine.

In regard to the examination of the urine, Dr. COTTING said it was not easy to procure enough for this purpose at the time of the fit, when there was great liability of an admixture of mucus and the discharge from the vulva. In the cases he had referred to, natural delivery took place three or four hours after the fit. The first child lived, the second died. Albumen was detected in the urine for three or four days subsequent to the delivery. In one case which he saw many years ago, where the convulsions took place after delivery, he bled the patient.

Dr. WELLINGTON said he had had two patients, in the last two years, in one of whom there was great anasarca and great secretion of albuminous urine for three or four months previous to delivery, but no convulsions, although they had been anticipated. The patient was very anæmic after labor, but has since entirely recovered. In the other case, the urine was not albuminous, nor was there any anasarca, but the day after labor she had a convulsion, which, upon the evidence of those in attendance, he considered to be puerperal. In two other cases in which artificial labor was resorted to, both patients died. He would remind the President of a case seen with him eight or ten years ago, in which, after all other remedies had been tried without success, an assafetida enema procured immediate relief. In this case there was dislocation of the lower jaw several times during the convulsions.

Dr. PUTNAM thought it was a matter of great doubt whether any-

thing was gained by hastening the labor in cases complicated with convulsions. His decided opinion was against such a course.

The PRESIDENT said that there was another important question connected with this subject—How far convulsions were connected with the contractions of the uterus? He believed that they coincided to a certain extent.

Dr. CRANE's experience did not lead him to the belief that there is a general correspondence between the anasarca state and puerperal convulsions. He thought that strong, robust women were more inclined to fits, while weak, delicate, and pale women were more likely to have good labors in this respect, although they got up slower.

Dr. C. D. HOMANS stated that he had seen eight or ten cases of puerperal convulsions, all of which were in what might be termed delicate women. In one of the cases there was anasarca.

The President asked if any gentleman had seen puerperal convulsions more than once in the same patient.

Dr. CORNING said he had, but in one instance only, which he had already referred to. It had been his fortune to see in consultation, in the course of a single month, four cases of convulsions. The patients were all of them Irish, and had been through three or four hands before they came under the charge of the physician who sent for him. In these the delivery was effected three times by perforation, and once by the forceps. There was no anasarca noticed in these cases.

Dr. SARGENT asked whether albumen is ever found in the urine of nursing women?

Dr. CORNING said he thought albumen might be present in an appreciable quantity in the urine in a variety of diseases, where at present it is not suspected. He expressed a hope that this matter might be taken up, and some one would undertake to determine whether albuminous urine is peculiar to certain diseases, or whether it is not, to a certain extent, always present when diseased action is going on in the system.

A general discussion then ensued upon the effect of tying the placental end of the umbilical cord, as a means of expediting the delivery of the placenta. In the course of the debate, the following cases were related, by the President, showing the length of time that the fœtus can remain after birth without respiration by the lungs.

While attending the midwifery lectures of Dr. Chapman, of Philadelphia, he placed under the care of Mr. John Shalbys and myself, the case of a black woman in labor. It was in summer. The case advanced very naturally, and the child and placenta were born. The child did not breathe; but as the cord beat strongly, we waited for breathing to occur naturally. Then artificial respiration was tried, but ineffectually. The cord continued to beat; a tub of warm water was procured, and the child and placenta were immersed in it, except the head. But there was no breathing. At length there was a gasp, and soon after regular respiration was established, the cord cut, &c. The child did well. Buffon's experiment of immersing the whole body of the young of a quadruped in warm water, and so excluding them from the air, occurred to us, and the success of the experiment so far as preserving foetal life, and for some time, was remembered, but our case was not one for such a trial.

The important question arises—How long was it from the birth that foetal life continued in our case? I cannot tell. The interest in the

case was so great that the question of time was not thought of. It is, however, clear that a good deal of time must have elapsed, for much and many things were done, and the situation of the family caused delay in whatever was attempted. The warm water was to be got. Before anything was done, was delay. The placenta was to come away, and then artificial breathing occupied much time, for the life of the child seemed to depend upon its establishment. What attracted my notice was, that no hæmorrhage occurred from the uterine surface of the placenta. Does not this fact raise a question as to the common opinion of the mode of connection between the placenta and womb? And again, how was the blood purified in this child? Or, what is done by the placenta with the blood which is carried from the foetus back into the placenta?

Dr. Chapman considered this one of the most remarkable cases of continued life under the circumstances, and thought, from our account of what was done before breathing began, that between one and two hours must have elapsed.

Let me allude to another case. I was called to Mrs. —, stated to be in labor, and some distance from the house. Upon reaching the address, I found Mrs. — in bed, and asked of her state. She said she had been suddenly delivered without any assistance.

Where is the child? asked I. On the floor there. I looked round, and sure enough there was a mass, but as much resembling a child as would have any other moderately filled bag. Blinds and curtains of the windows were closed. Upon stooping down, I found that active movements were being executed by the enclosed. It was then the *unborn* child, with waters, membranes and placenta, which was lying before me. The membranes were broken, the waters discharged, and the liberated child in full roar, as if happy to find itself in its new quarters.

Note by the Secretary.—With regard to the question of suspended respiration in new born children, Dr. T. Gaillard Thomas, Physician to the Bellevue Hospital, New York, in a lecture on this subject, reports that in one case three quarters of an hour elapsed before breathing was established, twenty-five minutes having passed before the slightest appearance of respiration showed itself. He also quotes five other cases in which a successful result was gained after an interval varying from fifteen to forty-five minutes. The longest time occurred in a case where the mother, with the intent of infanticide, *had buried her child in the earth*. In the case reported by Dr. Thomas, the mother had “uræmic convulsions of the gravest character,” for more than seventeen hours, and was finally delivered by the forceps.—(*N. Y. Jour. Med.*, May, 1860.)

Bibliographical Notices.

Hand-book for the Military Surgeon; being a Compendium of the Duties of the Medical Officer in the Field, the Sanitary Management of the Camp, the preparation of Food, &c.; with forms for the requisition of Supplies, Returns, &c.; the Diagnosis and Treatment of Camp Dysentery, and all the important points in War Surgery: including

Gunshot Wounds, Amputations, Wounds of the Chest, Abdomen, Arteries and Head, and the Use of Chloroform. By CHARLES S. TRIPLER, A.M., M.D., Surgeon United States Army, and GEORGE C. BLACKMAN, M.D., F.R.M.S., Professor of Surgery in the Medical College of Ohio, Surgeon to the Commercial Hospital, St. John's Hospital, &c. 16mo. Pp. 121. With an Appendix, pp. xlii. Cincinnati: Robert Clarke & Co. 1861.

THIS is a timely book, the forerunner, probably, of many of its class which the exigency of the times will call forth. It meets in itself, however, most of the wants of the present hour. It has the recommendation, also, of being written principally by an experienced surgeon of our own Army, his contribution being the substance of the lectures which he has delivered for the last three years in the Medical College of Ohio. Three important and valuable chapters are from the pen of Prof. Blackman, who also arranged three of Dr. Tripler's lectures from the notes which his official duties at head quarters compelled him to leave unfinished. The chapter on the use of chloroform is borrowed from Macleod's work on the Crimean war.

This is a most useful book, and our volunteer surgeons cannot get possession of it too soon. The first two chapters, on the duties of army surgeons in organizing field hospitals, military hygiene, &c., meet at once the very first questions which will be raised by a novice in taking the field. Dr. Tripler gives a concise account of the course which has been adopted in the United States Army in these matters. All the minute details of the amount of rations supplied to the troops—what articles of diet the surgeon may substitute for them in certain cases—the daily routine of his duties and those of his subordinates, and what those subordinates are, in hospitals and in the field—the number of tents assigned to him and their various arrangements—the special duties of the march and the battle-field, in all their details are clearly and methodically given, so that a surgeon new in the service sees at once what his work is.

In the chapter on military hygiene some important and startling facts are mentioned, such as we were not fully prepared for; such, for instance, is the statement that in the Mexican war "the relative losses of the volunteers and regulars of the old army from disease were as 4.7 to 1; the deaths, 6.3 to 4.7"; a result which Dr. Tripler considers entirely unnecessary and due "simply to ignorance of the laws of health on the one hand and the constant observance of them on the other." Volunteers, also, he says, are not subjected to the rigorous examination which recruits for the army are compelled to undergo, and consequently are admitted to the service very often, when as recruits they would have been rejected. In this chapter on hygiene the subjects of ventilation, cleanliness, and the proper position of camps are thoroughly treated in the most practical manner. Particularly valuable at the present time, when our troops are already complaining of, and, if the accounts are true, suffering from, improper food badly cooked, are the numerous recipes copied from Soyer, based on his Crimean experience, for preparing a variety of cheap and nutritious dishes for soldiers' use. Dr. Tripler's remarks with regard to the unrestrained use of water for drink by troops when on the march, are very judicious; also what he says of the use of stimulants. These, it appears, do not form a part of the army rations at the present time, except "upon a march, upon fatigue duty, and upon the fron-

tiers." "In cold or wet weather, on guard or fatigue duty, on the march, or whenever unusual exertion is to be made, I am persuaded that the use of brandy or whisky is beneficial. Their protracted use, however, will be found prejudicial to the health. Brandy is the most exceptionable in this respect. Whisky is much less so."

The diarrhœa and dysentery of camps are next treated of, and much valuable information is given, based on the experience of our armies. The various casualties of active service follow, and the work concludes with the chapter on the use of chloroform. A very valuable Appendix is added, which contains full lists of all the articles which are supplied to Army surgeons—the instruments, apparatus, the drugs and the quantities of each in proportion to the number of the troops, formulæ for the official returns and receipts of the surgeons to the quartermaster, &c. In short, the whole volume is eminently practical and fitted for the present moment. We notice some errors of the press, which we suppose are attributable to the haste with which the book has been issued. But we cannot be so charitable to such Americanisms as "*ax*" for axe, "*center*" for centre, "*hight*" for height, and the like, which we cannot suffer to go unchallenged, wherever we may meet them. Crosby & Nichols have the book for sale. Price one dollar.

A Manual of Military Surgery, or Hints on the Emergencies of Field, Camp and Hospital Practice. Illustrated with wood-cuts. By S. D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia. Philadelphia: J. B. Lippincott & Co. 1861.

The publication in the present crisis of a book on military surgery from the pen of so distinguished a surgeon as Dr. Gross, is, to say the least, most opportune. The little book before us does not profess to teach all that is known on this subject, but is intended rather as a hand-book for the military surgeon, which he may always have by him, whether in the camp or in the field, for consultation. It is essentially, as the author remarks, "a book for emergencies, portable, easy of reference, and always at hand." We regret that we have not space at present to more than advert to its publication. Originally intended for the pages of the *North American Medico-Chirurgical Review*, we think Dr. Gross has done a public service in allowing it to appear in its present form, which places it within the reach of those who stand most in need of its practical teachings.

The Theory and Art of Bread-making. A New Process without the aid of Ferment. By E. N. HORSFORD, Rumford Professor in Harvard University, Cambridge. Pamphlet, pp. 30. Cambridge: Welch, Bigelow & Co., Printers to the University. 1861.

The title fully describes this little brochure. It is a condensed scientific treatise on the important art of making bread; and if the wisdom it contains could make itself appreciated by those to whom the responsible duty of preparing our daily "staff of life" is entrusted, it should be bound in imperishable covers and become a household book with every family. It is fully illustrated with excellent wood-cuts, showing on a large scale the intimate structure of wheat, grain, bran, &c., and concludes with setting forth the advantages of Prof. Horsford's new method of making bread, with full directions for the practical application of it. For sale by A. Williams & Co.

Our Alma Mater Fifty Years Ago. An Oration delivered before the Alumni of the College of Physicians and Surgeons of Columbia College, March 14, 1861. By THOMAS W. BLATCHFORD, A.M., M.D., Troy, N. Y.

THIS was an address delivered by Dr. Blatchford at the spring commencement of the College, it being its fifty-fourth anniversary. The subject selected was in good taste, and its treatment, if we may employ an architectural phrase, has been remarkably successful. Free from the common places which too often characterize such productions, the orator has furnished a most useful and entertaining sketch of the early history of the college, as illustrated by brief notices of its distinguished founders, among whom are ranked those whose names are imperishably connected with the history of American medicine.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 30, 1861.

INSPECTION OF THE VOLUNTEERS.—This is a very important matter at the present time. Too much care cannot be taken that no recruits shall be allowed to enter the service without the most rigid examination; and no one should be passed who has the least physical infirmity, or germ of disease, which the hardships of a campaign are likely to develop into serious causes of disability. The want of thoroughness or strictness in the examination of volunteers, has heretofore been a serious cause of disease in our service. Apart from the actual loss of effective force which sickness entails, it is a serious discouragement to any body of soldiers, particularly to volunteers, to have a large number of their comrades inmates of the hospital. The examination of recruits for the regular service is very strict. Dr. Tripler states that in 1852, of all applicants for enlistment, there were rejected 13,338, while there were enlisted but 2,726—only 17 per cent. of the men offering. In the case of the volunteers who recently hastened to Washington to save the capital, such an inspection could not, of course, have been required. They sprang to arms in the emergency of the moment, and all minor considerations were properly disregarded in the accomplishment of so important a result. But the case is different now, when men are being enlisted, with due deliberation, for the whole war. These should be subjected to as rigorous an inspection as those who offer for the regular army. We make these remarks because we have been told, we hope incorrectly, that men with *hernia* have been allowed to enlist. This should not be. Among the applicants in 1852, according to the authority quoted above, 314 were rejected on account of this infirmity. It is better that such men should be rejected at once, than that they should be subjected to the mortification and disappointment of being sent home by an army surgeon, after being mustered into the service of the United States.

REQUESTS OF N. I. BOWDITCH, Esq.—In a recent number, we noticed the decease of this lamented gentleman, and referred to some of
VOL. LXIV.—No. 17B

the acts of charity and kindness by which during his life he gladdened so many hearts. His generosity did not cease with his life, but still lives in the blessings which his judicious bequests will continue to bestow. Since writing the article referred to, we have learned that he left the sum of five thousand dollars to the Massachusetts General Hospital, as a permanent fund, the interest of which should be expended in the purchase of artificial legs for those unfortunate persons who may hereafter suffer amputation in that institution. Two thousand dollars are left for the purpose of reprinting the valuable and interesting history of the hospital, written by himself. The sum of forty-three hundred dollars is left in small legacies to nurses, attendants, and former inmates of the hospital, in whom Mr. Bowditch became interested while a trustee, and seven hundred dollars a year in annuities to five persons of the same class. Truly, his memory will long be blessed.

ARSENIC AS A REMEDY FOR CHRONIC DIARRHŒA.—Some three years ago, my friend Dr. Foster, of Cincinnati, mentioned to me that he had seen surprising results in a case of chronic diarrhœa, from the use of very small doses of Fowler's solution. I lost no time in testing its powers. The first case in which I employed it was one of an old friend, a general officer in the army, who was the subject of a debilitating and harassing diarrhœa, contracted in Florida many years since. He kept it somewhat in check by the constant use of astringent and anodyne draughts. I gave him five drops of the solution a day, in divided doses, with the result of procuring an undisturbed night's sleep for the first time in several months, and his complete recovery in a few weeks. I have since employed it in several cases, and always with more benefit than any other remedy I have ever used. —*Hand-Book of Military Surgery*, by CHAS. S. TRIPLER and GEORGE C. BLACKMAN.

DEATH OF DR. REESE.—We learn from an obituary notice in the *American Medical Times*, that Dr. D. Meredith Reese, a name familiar to the profession throughout the country, died on the 13th of the present month. We extract the following from the notice alluded to:—

"Dr. Reese was born in Maryland, about the year 1800. He graduated in medicine at the University of Maryland, March 26, 1819, his inaugural thesis being *De Mania Religiosa*, and settled in practice at Baltimore. He passed through the epidemic fever which devastated that city in 1819, and wrote a 12mo. pamphlet upon it soon after its disappearance. He was afterwards appointed 'Professor of the Institutes of Medicine and Surgery and Medical Jurisprudence in the Washington University of Baltimore,' and subsequently held professorships in the Albany Medical College, New York, and the Castleton Medical College, Vermont. It was about this time that Dr. Reese took up his residence in New York. He acquired so much professional and political influence as to be appointed Resident Physician at Bellevue Hospital, a position which he retained for several years, until the office was abolished in 1849."

He subsequently edited an edition of Cooper's *Surgical Dictionary*, and afterwards engaged in private practice, and commenced the publication of a medical journal, which has continued till the present time.

"Dr. Reese was one of the original members of the Academy of Medicine, and drafted its first constitution. He always took a deep interest in its affairs, was seldom absent from its meetings, and entered heartily into its discussions.

He was a ready and fluent speaker, a good debater, familiar with parliamentary rules, and often succeeded in carrying his point by the skillful use of this knowledge. At the meeting of the American Medical Association held at Nashville, Tenn., in 1857, Dr. Reese was elected second Vice President." * * *

"As a writer, Dr. Reese was widely known, not only in medicine, but in politics, religion, &c. He wielded a rapid and vigorous pen; but he was neither happy in the choice of his subjects, nor in the manner of treating them. His arguments were too often specious, his style inflated, and his illustrations inapt. He exhibited an almost total want of power of discriminating the true character and motives of men, and was thus frequently led to attack with great vehemence the best members of the profession, and attribute to them motives which a generous mind would scorn to entertain. This unfortunate peculiarity brought him in constant and unfriendly collision with his professional brethren, and completely nullified his influence. His most useful papers were his reports to the American Medical Association, the last of which, on Medical Education, is replete with mature and well-digested views of this all-important subject."

THE GEORGIA AND AMERICAN MEDICAL ASSOCIATIONS.—At the recent annual meeting of the Georgia Medical Association, holden at Atlanta April 10th, among other items of business, the following preamble and resolutions, reported by the Committee on the relations of the Association with the American Medical Association, were unanimously adopted:—

That while this Association acknowledges no abatement of its zeal for the advancing intelligence and success of the profession—to whose interests it is devoted—and contemplates no abandonment of the high code of ethics and the conventional courtesies which have so long governed and distinguished the ranks of regular medicine; yet, the circumstances by which we are now surrounded, not only authorize, but require the disruption of long existing ties as indispensable to the maintenance of harmonious action and the continued progress of the great principles to whose destiny we are pledged; therefore,

1. *Resolved*, In the opinion of your committee, the great political revolution which has sundered the *National* ties that have bound us as a part of a Confederate Government of Independent States for three-fourths of a century and spread deep disaffection far and wide through the two sectional divisions of the late "Union," constitute ample and sufficient cause—such as will be sanctioned at the impartial bar of the scientific and professional world—for the prompt and entire disruption of the bonds by which we have been heretofore united to the American Medical Association, and we hereby recommend that they be forthwith dissolved.

2. *Resolved*, That whatever may be our grievances as a people—and we hereby declare them to be deep, and in their results upon us abiding—we suffer them not to control us in this decision, but declare it to be the calm and deliberate action of those who are desirous to receive the highest moral and scientific results contemplated by this Association.

3. *Resolved*, That we hold ourselves in readiness, as the organized representatives of the Medical Profession of the great State of Georgia, to unite with our sister States of the Confederate States of America, in the formation of a new professional organization for the *South*, upon the same broad and generous principles which we have been ever disposed to honor and maintain, and which shall still continue to meet our warm approval and hearty concurrence.

4. *Resolved*, That in accordance with the foregoing preamble and resolutions, this Association will be no longer represented in the American Medical Association, and hereby declares its complete and final separation from that body.

It was also subsequently

Resolved, That the secretary communicate the secession action of this body to the various State medical organizations within the limits of the Confederate States, and invite their attention thereto; and also to consider the propriety of organizing a Southern Medical Association.

MESSRS. EDITORS.—I desire to correct a few misstatements in my evidence at the Healey trial, as published in your issue of May 2d. They occur in the second sentence on page 283, which makes me affirm that the method employed by Dr. Hayes is not the best, and that I know of no authority for those tests; both these statements are erroneous, as will be evident to any chemist. I testified that the process employed was not the *usual* one (that of M. Staas). As to the reliability of the method employed, I believe it to be one of the best, and one that would be most likely to succeed for the detection and elimination of strychnia in the tissues. The tests employed by Dr. Hayes not only include those sanctioned by the highest authority, but many others of minor importance, which the large amount of strychnia extracted from the stomach rendered possible.

The remaining errors being of less importance than the above, I will pass without correction.

Yours respectfully,
6 Tremont St., May 23d, 1861.

DAVID M. BALCH,
Analytical and Consulting Chemist.

REMOVAL.—The office of the *MEDICAL JOURNAL* will hereafter be found at No. 334 Washington Street, up stairs. The building in which the *JOURNAL* has been published ever since its commencement in 1828, and where also the *Medical Intelligence* which preceded it was published, is soon to be taken down for the purpose of widening the street. The situation of our new quarters will be found in some respects much more desirable than that of the ancient and crowded place which we leave, and it is hoped that it may, as that has been, for a long series of years be resorted to by the patrons of the *JOURNAL* and the profession generally. In looking over the files of the *JOURNAL* preparatory to removal, we find many extra copies, some of them containing articles contributed from time to time by physicians in various parts of the country. The authors of such articles can obtain one or more of these copies gratuitously, by an early application at the office.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 25th, 1861.

DEATHS.

	Males.	Females.	Total.
Deaths during the week,	28	45	73
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	31.7	34.9	66.6
Average corrected to increased population,	73.94
Deaths of persons above 90,

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
17	1	2	10	1	0	0	1	2

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.124	Highest point of Thermometer,	69°
Highest point of Barometer,	30.396	Lowest point of Thermometer,	38°
Lowest point of Barometer,	29.824	General direction of Wind,	E. & S.W.
Mean Temperature,	57°.19	Am't of Rain (in inches),	0.000

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 729.

		BAROMETER.				THERMOMETER.				RAIN.		Mean Amount of Cloud 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean	7 A.M.	2 P.M.	9 P.M.	Mean	Time 00 inches.	Mean rate.	
					Height.	Lowest Point.	Highest Point.		Height.			
Monday,	May 13,	28.94	29.08	29.20		45	54	47	52.07			
Tuesday,	" 14,	29.31	29.30	29.27		49	66	60				
Wednesday,	" 15,	29.30	29.27	29.34		47	55	48				
Thursday,	" 16,	29.44	29.41	29.41		49	62	49				
Friday,	" 17,	29.49	29.44	29.39		47	65	58				
Saturday,	" 18,	29.36	29.26	29.24	29.295	54	63	60				
Sunday,	" 19,	29.18	29.11	29.12		60	70	61				

DEATHS IN BOSTON for the week ending Saturday noon, May 25th, 73. Males, 28—Females, 45.—Accident, 1—apoplexy, 1—congestion of the brain, 2—disease of the brain, 1—inflammation of the brain, 2—bronchitis, 1—cancer, 3—consumption, 17—convulsions, 1—croup, 1—cyanosis, 1—debility, 3—diphtheria, 2—dropsy of the brain, 2—scarlet fever, 2—typhoid fever, 1—malformation of the heart, 1—infantile disease, 1—intemperance, 1—disease of the liver, 2—disease of the lungs, 1—inflammation of the lungs, 10—measles, 1—neuralgia, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 1—puerperal disease, 1—suicide, 1—zethiaz, 1—betanus, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 29—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 17—above 60 years, 7. Born in the United States, 44—Ireland, 21—other places, 8.